

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant :	Vincent P. Walker et al.	Art Unit :	3724
Serial No. :	10/799,938	Examiner :	Edward F. Landrum
Filed :	March 11, 2004	Conf. No. :	8045
Title :	SHAVING CARTRIDGES AND RAZORS		

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

Appellant submits this supplemental appeal brief in response to the Office Action of April 13, 2007 (the "Office Action"). In the Office Action, the Examiner's final rejection dated August 28, 2006 was withdrawn and replaced by a new non-final rejection using many of the same references and one new reference, Richard et al., U.S. Patent No. 7,200,937 ("Richard"). Appellant maintains that the pending claims are patentable and wishes to proceed directly to appeal.

(1) Real Party in Interest

The real party in interest is The Gillette Company, Prudential Tower Building, Boston, Massachusetts. The Gillette Company recently was acquired by The Procter & Gamble Company.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 1-52 are pending. Claims 19-37, 51, and 52 have been withdrawn from consideration. Claims 1-18 and 37-50 stand rejected and are appealed herein.

Claims 1 and 38 stand rejected under 35 U.S.C. §102(b) as being anticipated by Simms, U.S. Patent Application Publication No. 2002/0023351 ("Simms"). Claims 1-8, 38-45, and 50 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms in view of Richard. Claims 9, 12-15, 46, and 47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over

Simms, or the modified device of Simms in view of Richard, in view of Apprille et al., U.S. Patent No. 5,249,361 ("Apprille"). Claims 10 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms in view of Apprille in view of Andrews, U.S. Patent No. 6,145,201 ("Andrews"), or over Simms in view of Richard, Apprille, and Andrews. Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Simms in view of Apprille and in further view of Gilder, U.S. Patent Application Publication No. 2002/0000040 ("Gilder"), or over Simms in view of Richard, Apprille, and Gilder. Claims 17, 18, 48, and 49 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms, or the modified device of Simms in view of Richard, in view of Rosenkranc, U.S. Patent No. 6,276,061 ("Rosenkranc").

(4) Status of Amendments

All amendments have been entered.

(5) Summary of Claimed Subject Matter

The claims relate to shaving cartridges (see e.g., specification, page 1, lines 2-3). Claims 1 and 38 are the only non-withdrawn pending independent claims. Examples of many of the claimed features are shown in figures 23 and 27, depicted below.

FIG. 23

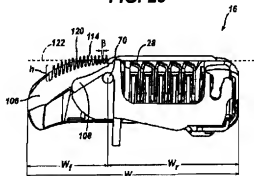
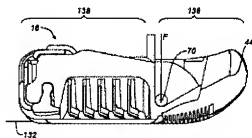


FIG. 27



As set forth in claims, the shaving cartridge includes a housing, a front portion, a rear portion, and two side surfaces extending from the front portion to the rear portion (see e.g., specification, page 6, lines 19-20; specification, page 19, lines 17-22; specification, page 20, lines 13-20; figs. 23, 27, and 39). In figure 27, for example, reference number 136 indicates the front portion and reference number 138 indicates the rear portion. The shaving cartridge further

includes a pivoting structure defining a pivot axis for pivoting of the housing with respect to the handle (see e.g., specification, page 16, lines 1-7). In figures 23 and 27, for example, reference number 70 indicates a pivot axis.

The shaving cartridge also includes a housing axis extending from the rear portion to the front portion perpendicular to the pivot axis (see e.g., specification, page 19, lines 5-9). The rear portion further includes a rear surface (see e.g., figs. 23 and 27). The shaving cartridge also includes one or more shaving blades between the front portion and the rear portion (see e.g., specification, page 1, lines 14-15; figs. 23 and 27). The one or more blades extend along the respective one or more parallel blade axes that are parallel to the pivot axis and located behind the pivot axis (see e.g., specification, page 1, lines 15-17; figs. 23 and 27).

The shaving cartridge also includes a guard at the front portion of the housing (see e.g., specification, page 6, lines 19-23; figs. 3, 23, and 27). The guard includes an elastomeric member that extends along the housing axis in front of the pivot axis by a front distance (W_f) that is equal to, or no more than 45 percent less than, a rear distance (W_r) along the housing axis from the pivot axis to the rear surface, so as to provide a cartridge that is substantially balanced about the pivot axis (see e.g., specification, page 18, line 3 – page 19, line 9; fig. 23). As shown in figures 23 and 27 above, the front portion (136) has a front distance (W_f) that is no more than 45 percent shorter than the rear distance (W_r) of the rear portion (138). The front and rear distances are determined by the width of the blade unit (W) as divided by the pivot axis 70 (see e.g., specification, page 18, lines 7-31; fig. 23).

(6) Grounds of Rejection to be Reviewed on Appeal

Appellant requests reversal of the 35 U.S.C. § 102(b) rejection and all of the 35 U.S.C. § 103(a) rejections.

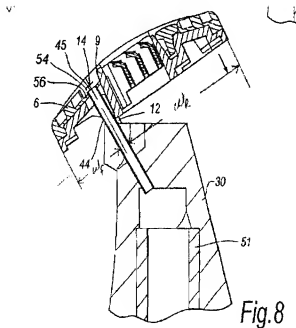
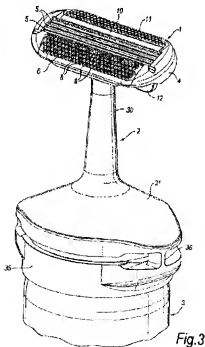
(7) Argument

In response to the Appeal Brief filed January 16, 2007, the Examiner issued a new non-final rejection using many of the same references previously discussed. Appellant will explain why each of the currently pending rejections should be reversed.

A. Claims 1 And 38 Are Not Anticipated By Simms Under 35 U.S.C. § 102(b)

The Office Action mailed April 13, 2007 includes a new rejection of independent claims 1 and 38 under 35 U.S.C. § 102(b) as anticipated by Simms. The prior rejection over Simms was a rejection under 35 U.S.C. § 103(a). The Examiner now contends that "Simms further generally teaches a ratio between the front and rear portions as the front portions appears to be within 45 percent of the length of the rear portion (see Figure 3)" (Office Action, page 2, lines 18-20). There is absolutely no support for this contention.

Claims 1 and 38 require that the front distance (W_f), is equal to, or no more than 45 percent less than, the rear distance (W_r). The claims define the lengths of the front distance (W_f) and the rear distance (W_r) as dependent on the placement of the pivot axis. Figure 3 of Simms, reproduced below, does not show "a front distance that is equal to, or no more than 45 percent less than, a rear distance." Figure 3 is a perspective view that does not clearly indicate the placement of the pivot axis (14). Other figures of Simms, however, do more clearly indicate where the pivot axis (14) is placed. Figure 8 of Simms, also reproduced below, instead suggests a razor assembly having a front distance that is about 65 percent less than a rear distance.



The Examiner also asserts that "Simms also teaches the cartridge being balanced about the pivot axis as any shaving cartridge will balance itself about a pivot axis when placed in a rest position." (Office Action, page 2, lines 20-22). This statement is both unsupported and irrelevant. The Examiner does not include a citation to where Simms makes this disclosure, and even if such a disclosure did exist, it would not qualify as a disclosure of "a front distance that is equal to, or no more than 45 percent less than, a rear distance."

It is also noted that the Examiner contradicts this rejection with the comment that "Simms teaches all of the elements of the current invention as stated above except for the specific optimal lengths, ranges, or percentages of both the front portion and the portion from the pivot axis to the rear surface" (Office Action, page 3, lines 9-11).

Because Simms fails to disclose "a front distance that is equal to, or no more than 45 percent less than, a rear distance," the rejection of claims 1 and 38 under 35 U.S.C. § 102(b) as anticipated by Simms is improper and must be withdrawn.

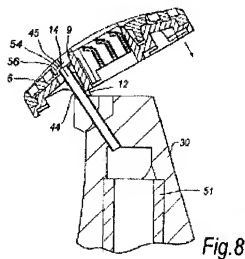
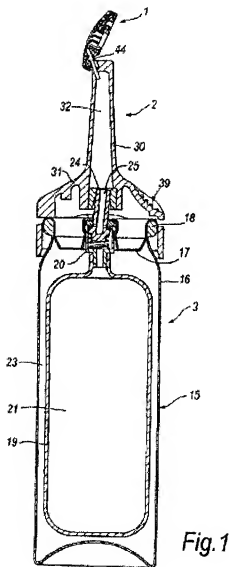
B. Claims 1-8, 38-45, And 50 Are Not Obvious Under 35 U.S.C. § 103(a) Over Simms In View Of Richard

Claims 1-8, 38-45, and 50 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Simms in view of Richard. The Examiner, however, failed to present a *prima facie* case of obviousness, and thus this rejection should be withdrawn.

As discussed above, Simms does not disclose "a front distance that is equal to, or no more than 45 percent less than, a rear distance." In making this 103(a) rejection, the Examiner asserts that "Simms teaches all of the elements of the current invention as stated above except for the specific optimal lengths, ranges, or percentages of both the front portion and the portion from the pivot axis to the rear surface" (Office Action, page 3, lines 9-11). The Examiner then makes the following statement:

Richard teaches (Col. 4, lines 1-21) that it is old and well known in the art to pivotally balance a shaving cartridge to a neutral position on a handle and make the pivot axis as equidistant as possible between guard and the cap of the shaving cartridge to thereby aid in evenly distributing the shaving forces across each shaving blade

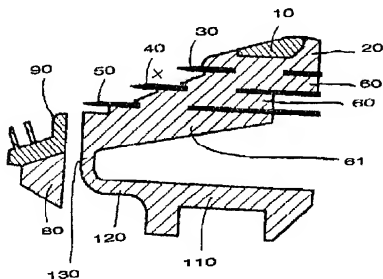
(Office Action, page 3, lines 15-18). The Examiner then concludes that "[i]t would have been obvious to have modified Simms to incorporate the teachings of Richard to construct the shaving cartridge so that the pivot axis was as close to the center of the cartridge as possible." For the reasons given below, this is an improper combination of references that fails to consider that Simms teaches a relationship between the pivot axis and a discharge port that teaches away from the Examiner's proposed movement of the pivot axis.



As shown in Figures 1 and 8 of Simms, reproduced above, Simms discloses a "blade unit (1) . . . mounted on a carrying structure (2) for pivotal movement, and a delivery system

(25,32,44) for conducting from a reservoir (21) a fluid, e.g. a lubricating fluid" (Simms, Abstract; fig. 1). Simms discloses a delivery tube 44 and a discharge port 45 (Simms, page 3, paragraph 27; figs. 1 and 7). Simms discloses that "discharge port 45 is disposed at a small distance on the underside of the guard surface 6 adjacent the backstop 9" (Simms, page 3, paragraph 27). Simms discloses that "[a]s a result of the discharge port 45 being located at or very close to the pivot axis 14 reliable delivery of fluid to the desired location on the blade is ensured while the pivoting capability is not impaired in any respect" (Simms, page 3, paragraph 27). In other words, Simms specifically discloses that the location of the pivot axis 14 should be "at or very close to" the discharge port 45 and also teaches a specific placement of the discharge port. The placement of the discharge port 45 at a location adjacent to the backstop, which is "integral with the blade unit frame 4," ensures that the lubricating fluid is discharged onto the skin at a position in front of the first blade so that each shaved portion of skin is lubricated prior to the movement of the blade across that portion of skin.

The various disclosures of the Richard reference do not overcome Simms' disclosures that teach away from a movement of the pivot axis 14. Richard discloses a razor head with a moveable blade package. Figure 9 of Richard, reproduced below, depicts a cross sectional view of the Richard razor blade unit.



There is no indication that the razor head of Richard would include a discharge port or that it would be intended for use with a lubricating fluid delivery system. Instead, Richard is concerned with having "a plurality of blades which are linked for coordinated movement along non-parallel

paths in response to forces encountered during shaving" (Richard, col. 2, lines 46-48.) While Richard does disclose that "[p]referably the pivoting axis is within 0.010 inches of the center of the cap and the guard," Richard also discloses that "[t]he pivoting axis is most preferably located on a shave plane defined by a plane passing through at least two of the blade edges and at a mid-point between the cap and the guard element when the blade package is in a neutral, i.e., unbiased, position" (Richard, col. 4, lines 3-10). These disclosures indicate that the pivot axis of the razor head of Richard would be located at approximately the location marked with an "X" in the reproduction of Figure 9 above. The location of the pivot axis in Richard would therefore be behind the first blade. The modification of the Simms device to result in the movement of the pivot axis without moving the discharge port would undermine the direct teachings of Simms to have "the discharge port 45 . . . located at or very close to the pivot axis 14." The movement of both the pivot axis 14 and the discharge port 45 of the Simms device to a location such as that disclosed by Richard would mean moving the discharge port 45 to a location behind the first blade, which would also undermine the teachings of Simms because doing so would result in the delivery of lubricating fluid at a position behind the leading blade. Accordingly, one having ordinary skill in the art at the time of invention viewing both Simms and Richard would not find it obvious to move the pivot axis of the Simms device to the pivot axis location disclosed by Richard because doing so would undermine the direct teachings of Simms regarding the locations of the pivot axis and the discharge port. Furthermore, the movement of both the discharge port 45 and the pivot axis 14 of the Simms device would also require a wholesale reconstruction of the Simms device.

Because the Examiner has not provided a sufficient reason why one having ordinary skill in the art at the time of invention would have chosen to ignore the express teachings of Simms regarding the placement of the pivot axis and the discharge port, the Examiner has failed to present a *prima facie* case of obviousness. Accordingly, the rejection of claims 1-8, 37-45, and 50 over Simms in view of Richard must be withdrawn.

In further support of the rejection of claims 1-8, 37-45, and 50 over Simms in view of Richard, the Examiner asserts the following:

It would have been an obvious matter of design choice to make the front portion a length of 6 mm and the rear distance a length of about 10 mm or any other

optimal lengths, or percentages of front distance as compared to rear distance, *for the purpose of finding the best front to rear distance ratio to correctly balance the shaving head*, because discovering optimal lengths from a pivot axis to balance the shaving head would have been a mere design consideration based on the length of the various materials and objects included in the shaving head

(Office Action, page 4, lines 5-13).

This is a classic example of hindsight reconstruction. The Examiner is starting from the problem solved by the Appellant, i.e., balancing the cartridge about the pivot axis. However, it was the Appellant who recognized this problem, which is not mentioned in the art of record. The Examiner then works backwards from this starting point, improperly using the Appellant's disclosure as a guide to reconstruct the Appellant's invention from the prior art. Furthermore, the Examiner's failure to consider segments of Simms' disclosure that suggest against a wholesale redesign of the Simms razor serves as further evidence of the hindsight reconstruction proposed by the Examiner.

The Examiner bases his conclusion of obviousness on the proposition that "it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art," gleaned no doubt from MPEP 2144.05 (II)(A), which cites In re Aller, 105 USPQ 233, in support of this assertion. Appellant respectfully notes that in In re Yates, 663, F.2d 1054, 1056 (CCPA 1981), the court expressed a concern with using In re Aller to support such a broad proposition:

The problem, however, with such "rules of patentability" (and the ever-lengthening list of exceptions which they engender) is that they tend to becloud the ultimate legal issue – obviousness – and exalt the formal exercise of squeezing new factual situations into preestablished pigeonholes. Additionally, the emphasis upon routine experimentation is contrary to the last sentence of section 103.

The proper test for non-obviousness is whether the differences between the subject matter and the prior art are such that the claimed subject matter as a whole would have been obvious to a person having ordinary skill in the art to which the subject matter pertains, as explained in Graham v. John Deere and Co., 383 U.S. 1 (1966).

Appellant respectfully submits that it would not have been obvious to the artisan to provide a cartridge having Appellant's claimed balance of front and rear distances from the pivot

axis, thereby providing a cartridge that is substantially balanced about the pivot axis. The Examiner endeavors to support his conclusion of obviousness by contending that "discovering optimal lengths from a pivot axis to balance the shaving head would have been a mere design consideration based on the length of the various materials and objects included in the shaving head." The verb "discover" is apt: there is nothing in the prior art that would have led the artisan, "based on the length of the various materials and objects included in the shaving head," to modify Simms to reach Appellant's invention. Instead, this was the Appellant's discovery.

Nor is In re Aller on point with regard to its facts. In In re Aller, the cited reference described a single experiment that would have invited further optimization (according to the Board, "any one in possession of the information presented by Hock et al. would naturally experiment to discover optimum conditions of temperature and concentration of acid for commercial exploitation of the process.") In contrast, in the present case there is nothing whatsoever in the art of record that would have led the artisan to believe that the Simms razor required further optimization in any respect, much less with respect to its balance characteristics. On the contrary, the artisan would not have had a reasonable expectation of success that the geometry of the Simms razor could be modified without a deleterious effect on shaving performance. Simms is very particular about both the placement of the discharge port 45 and of the pivot axis 14. The artisan studying the disclosure of Simms would have been reluctant to modify the placement of the pivot axis of Simms due to Simms' disclosure of positioning the discharge port "at or very close to the pivot axis" and positioning the discharge port "at a small distance on the underside of the guard surface 6 adjacent the backstop 9" (Simms, page 3, paragraph 27). Accordingly, it would not have been "an obvious matter of design choice" for an artisan to modify the lengths and ratios of the front portion and the rear portion of the Simms razor. Accordingly, the rejection of claims 1-8, 37-45, and 50 over Simms in view of Richard is improper and must be withdrawn.

In further regard to claim 50, the Examiner argues that because Richard discloses a disposable razor that it would be obvious to modify the device of Simms to also include disposable razors to "enable a user to easily replace the cartridge without having to replace the entire shaving device thereby saving the user money" (Office Action, page 4, lines 3-4). While saving a user money is a noble goal, the Examiner has failed to explain how one having ordinary

skill in the art at the time of invention would have known how to modify the Simms device to allow for disposable razors. The Simms device requires a discharge port 45 in the shaving razor unit that discharges lubricating fluids from a reservoir remote from the shaving unit. Richard does not disclose a disposable razor unit for use with a lubricating fluid dispensing device. There is no disclosure in either Simms or Richard that would enable one having ordinary skill in the art at the time of invention to produce a disposable and readily replaceable shaving razor unit for the Simms device that would continue to allow for the dispensing of a lubricating fluid from the reservoir. Because the Examiner has failed to discuss how Simms, Richard, or a combination thereof would enable the creation of such a lubrication dispensing disposable shaving razor unit, the Examiner has again failed to present a *prima facie* case of obviousness.

C. *The Additional Rejections of Dependent Claims Are Also Improper*

Various dependent claims have been rejected as unpatentable over Simms, or Simms in view of Richard, combined with various secondary references. Claims 9, 12-15, 46, and 47 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms, or the modified device of Simms in view of Richard, in view of Apprille. Claims 10 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms in view of Apprille and Andrews, or over Simms in view of Richard, Apprille, and Andrews. Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Simms in view of Apprille and Gilder, or over Simms in view of Richard, Apprille, and Gilder. Claims 17, 18, 48, and 49 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simms, or the modified device of Simms in view of Richard, in view of Rosenkranc. Appellant submits that these claims are patentable for at least the reason that they depend from a patentable base claim. None of these secondary references disclose or suggest anything that would have given one having ordinary skill in the art at the time of invention reason to ignore the teachings of Simms in regards to the placements of the pivot axis and the discharge port and modify the Simms device to meet the limitations of any of the pending claims. The outstanding rejections, therefore, are without basis, contrary to law, and must be reversed.

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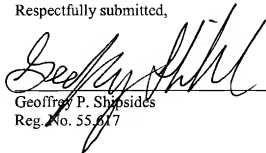
Attorney's Docket No.: 00216-659001 / Z-03353;
formerly Case 8129

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: _____

7/11/2007



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Appendix of Claims

1. A shaving cartridge for connection to a handle, the shaving cartridge comprising:

a plastic housing having a front portion, a rear portion, two side surfaces extending from the front portion to the rear portion, pivoting structure defining a pivot axis for pivoting of the housing with respect to the handle, and a housing axis extending from the rear portion to the front portion perpendicular to the pivot axis, the rear portion having a rear surface; one or more shaving blades between the front portion and the rear portion, the one or more blades extending along respective one or more parallel blade axes that are parallel to the pivot axis and located behind the pivot axis; and

a guard at the front portion of the housing including an elastomeric member that extends along the housing axis in front of the pivot axis by a front distance that is equal to, or no more than 45 percent less than, a rear distance along the housing axis from the pivot axis to the rear surface, so as to provide a cartridge that is substantially balanced about the pivot axis.

2. The shaving cartridge of claim 1, wherein the front distance is no more than 35 percent less than the rear distance.
3. The shaving cartridge of claim 1, wherein the front distance is substantially equal to the rear distance.
4. The shaving cartridge of claim 1, wherein the front distance is at least about 3.5 mm.

5. The shaving cartridge of claim 1 or 4, wherein the rear distance is at most about 11 mm.
6. The shaving cartridge of claim 1, wherein the front distance is between about 5.5 and 6.5 mm.
7. The shaving cartridge of claim 1 or 6, wherein the rear distance is between about 9.5 and 11 mm.
8. The shaving cartridge of claim 7, wherein the front distance is about 6 mm and the rear distance is about 10 mm.
9. The shaving cartridge of claim 1, wherein the elastomeric member includes an elastomeric fin.
10. The shaving cartridge of claim 9, wherein the fin extends along a fin axis that is parallel to the respective one or more blade axes, the fin having a length along the fin axis that is longer than a blade length.
11. The shaving cartridge of claim 9, wherein the fin is made of a material having a Shore A hardness between about 28 and 60.

12. The shaving cartridge of claim 1, wherein a leading portion of the elastomeric member extends beyond a leading edge of the front portion of the housing in a direction perpendicular to the blade axes.

13. The shaving cartridge of claim 12, wherein the leading portion is substantially unsupported along its length.

14. The shaving cartridge of claim 12, wherein the leading portion is sufficiently flexible to deflect upon contact with a user's skin.

15. The shaving cartridge of claim 14, wherein the leading portion is sufficiently flexible to conform to a contour of the user's skin during shaving.

16. The shaving cartridge of claim 12, wherein the leading portion has a first thickness adjacent the side surfaces of the housing, and tapers to a second, lesser thickness adjacent a center region of the guard.

17. The shaving cartridge of claim 1 further comprising a trimming assembly attached to the housing.

18. The shaving cartridge of claim 17, wherein the trimming assembly comprises a trimming blade.

38. A shaving razor including a handle and a cartridge connected to the handle, the shaving razor comprising:

a cartridge housing having a front portion, a rear portion and pivoting structure defining a pivot axis for pivoting of the housing with respect to the handle, and a housing axis extending from the rear portion to the front portion perpendicular to the pivot axis, the rear portion having a rear surface;

one or more shaving blades between the front portion and the rear portion, the one or more blades extending along respective one or more parallel blade axes that are parallel to the pivot axis and located behind the pivot axis; and

a guard at the front portion of the housing including an elastomeric member that extends along the housing axis in front of the pivot axis by a front distance that is equal to or not more than 45 percent less than a rear distance along the housing axis from the pivot axis to the rear surface so as to provide a cartridge that is substantially balanced about the pivot axis.

39. The shaving razor of claim 38, wherein the front distance is not more than 35 percent less than the rear distance.

40. The shaving razor of claim 38, wherein the front distance is substantially equal to the rear distance.

41. The shaving razor of claim 38, wherein the front distance is at least about 3.5 mm.
42. The shaving razor of claim 38 or 41, wherein the rear distance is at most about 11 mm.
43. The shaving razor of claim 38, wherein the front distance is between about 5.5 and 6.5 mm.
44. The shaving razor of claim 38 or 43, wherein the rear distance is between about 9.5 and 11 mm.
45. The shaving razor of claim 38, wherein the front distance is about 6 mm and the rear distance is about 10 mm.
46. The shaving razor of claim 38, wherein the elastomeric member includes an elastomeric fin.
47. The shaving razor of claim 38, wherein a leading portion of the elastomeric member extends beyond a leading edge of the front portion of the housing in a direction perpendicular to the blade axes.
48. The shaving razor of claim 38 further comprising a trimming assembly connected to the housing.

49. The shaving razor of claim 48, wherein the trimming assembly comprises a trimming blade.

50. The shaving razor of claim 38, wherein the cartridge is removably connected to the handle.

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Evidence Appendix

None

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Related Proceedings Appendix

None